



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/758,949	01/11/2001	Robert C. Frisch	0102323-00061	9640
21125	7590	12/16/2004	EXAMINER	
NUTTER MCCLENNEN & FISH LLP WORLD TRADE CENTER WEST 155 SEAPORT BOULEVARD BOSTON, MA 02210-2604			NGUYEN, BRIAN D	
			ART UNIT	PAPER NUMBER
			2661	

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/758,949

Applicant(s)

FRISCH ET AL

Examiner

Brian D Nguyen

Art Unit

2661

AC

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on the amendment filed 9/7/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 1-20 are objected to because of the following informalities: Appropriate correction is required.

Claim 1, it is suggested to change “a message packet having a format” in line 3 to --each message packet having a format--.

Claims 5 and 6, line 1, “a control symbol” seems to refer back to “a link level control symbol” in line 7 of claim 1. If this is true, it is suggested to change “a control symbol” to --the control symbol--.

Claim 6, line 2, “a first node” and “a second node” seems to refer back to first node and second node in lines 4 and 7 of claim 1. If this is true, it is suggested to change “a first node” and “a second node” to --the first node-- and --the second node--.

Claims 8, line 1, “a control symbol” seems to refer back to “a link level control symbol” in line 7 of claim 1. If this is true, it is suggested to change “a control symbol” to --the control symbol--.

Claim 10, “a first node” and “a second node” does not seem to refer back to “a first node” and “a second node” in claim 1. To avoid confusion, it is suggested to change “a first node” to --one node-- and “a second node” to --another node--. In line 5, “devices” seems too refer back to “devices” in line 2. If this is true, it is suggested to change “devices” to --the devices--.

Claim 11, line 3, for the same reason as described to claim 1, it is suggested to change “a first node on a link and a second node on the link” to --the first node and a second node--. In line 4, “a message packet” should be changed to --each message packet--. In lines 7-9, it is suggested

Art Unit: 2661

to change “at least one of said first and second nodes (**“transmitting node”**) being configured to **communicate** a link level THROTTLE control symbol effective to induce the other of said nodes (**“receiving node”**) receiving said THROTTLE control symbol to” to --at least one of said first and second nodes being configured to **transmit** a link level THROTTLE control symbol effective to induce the other of said nodes receiving said THROTTLE control symbol to--. In line 12, it is suggested to change “the first receiving node” to --the receiving node-- and in line 10, change “said receiving node” to --the receiving node--.

Claims 12-14, “a transmitting node” does not seem to refer back to “the transmitting node” in line 12 of claim 11. To avoid confusion, it is suggested to change “a transmitting node” to --a node--.

Claim 16, line 4, for the same reason described to claim 1, it is suggested to change “a first node **on a link** and a second node **on the link**, a message packet having a format” to --a first node and a second node, **each** message packet having a format

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-10 and 20-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation “said second nodes” in line 7. There is insufficient antecedent basis for this limitation in the claim. Said second node seems to refer back to “another

Art Unit: 2661

node” in line 5. If this is true, it is suggested to change “another node” to --a second node--. In line 5, “the link” is unclear which one of “the link” in lines 3 and “a link” in lines 4-5 the applicant is referring to. It is suggested to change “transmitted by a first node on a link and received by another node on the link” in line 4 to --transmitted by a first node and received by a second node--.

Claim 4, lines 2-5, “receiving node that receives two portions of a message packet surrounding a control symbol realigns **the received portions** apply the error code to **the two surrounding portions** of the message packet” is unclear because “the received portions” and “the two surrounding portions” both seem to refer back to “two portions” in line 3. It is unclear how the received (two) portions are aligned to themselves.

Claim 9 recites the limitation “the marker” in line 4. There is insufficient antecedent basis for this limitation in the claim. The marker seems to refer back to “a marker” in line 2 of claim 2. If this is true, it is suggested to change “A digital data system according to claim 1” to --A digital data system according to claim 2--.

Claim 20 recites the limitation “the adjacent receiving node” in line 2. There is insufficient antecedent basis for this limitation in the claim. The claim is unclear because “the control symbol received from a receiving node” and then “sent by the adjacent receiving node”. It is unclear which node is sending the control symbol.

Claim 21, for the same reason as described to claim 1, it is suggested to change “a data message including” in line 3 to --each data message including--.

Claim 22 recites the limitation “the affected message” in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-8, 10-11, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Padovani et al (6,574,211) in view of Yeung et al (6,438,13) Esmailzadeh (6,285,663).

Regarding claims 1-8, 10, 11, and 15, Padovani discloses a system comprising a plurality of nodes, the nodes are communicating to one another over a link and the transmission rate is adjustable to meet the network condition (see abstract; col. 7, lines 1-6; col. 29, lines 52-62). Padovani does not specifically disclose aligning the message packet and interposing between symbols of a message packet as an additional symbol to signal an adjacent node on the link. However, aligning the message packet and interposing between symbols of a message packet as an additional symbol to signal an adjacent node on the link are well known in the art. Yeung discloses aligning the message packet (see col. 8, line 40) and Esmailzadeh discloses interposing between symbols of a message packet as an additional symbol to signal an adjacent node on the link (see col. 1, lines 6-8; col. 7, lines 6-21). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to align the message packet as taught by Yeung and interposing one signal in another signal as taught by Esmailzadeh in the system of Padovani in order to improve performance in communications.

Art Unit: 2661

6. Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Padovani in view of Yeung and Esmailzadeh as applied to claim 11 above, and further in view of James et al (6,208,645).

Regarding claims 12-14, Padovani in view of Yeung and Esmailzadeh does not specifically disclose the use of idle symbol. However, James discloses the use of idle symbol (see col. 2, lines 29-35; col. 4, lines 25-34; col. 5, lines 10-11; figure 4b). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the idle symbol as taught by James in the system of Padovani in view of Yeung and Esmailzadeh in order to improve performance of the communications.

7. Claims 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Padovani et al (6,574,211) in view of Yeung et al (6,438,13) James et al (6,208,645).

Regarding claims 16-19, Padovani discloses a system comprising a plurality of nodes, the two adjacent nodes are communicating to one another over a link and the transmission rate is adjustable to meet the network condition (see abstract; col. 7, lines 1-6; col. 29, lines 52-62). Padovani does not specifically disclose aligning the message packet and the use of an idle state control symbol. However, aligning the message packet and the use of an idle state control symbol are well known in the art. Yeung discloses aligning the message packet (see col. 8, line 40) and James discloses the use of idle symbol (see col. 2, lines 29-35; col. 4, lines 25-34; col. 5, lines 10-11; figure 4b). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to aligning the message packet in relation to word boundaries as taught by Yeung and using the idle symbol as taught by James in the system of Padovani in order to adjust the transmission rate based on the available data.

8. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Padovani in view of Yeung and James as applied to claim 16 above, and further in view of Esmailzadeh (6,285,663).

Regarding claim 20, Padovani in view of Yeung and James does not specifically disclose embedding a control symbol in a message packet. However, Esmailzadeh discloses this feature (see col. 1, lines 6-8; col. 7, lines 6-21). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to embed one signal in another signal as taught by Esmailzadeh in the system of Padovani in view of Yeung and James in order to improve performance in communications.

9. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable Keen (5,664,091) in view of Arimilli et al (6,671,712).

Regarding claims 21-23, Keen discloses a system that comprises a first node and a second node. Data and control information is transmitted between the first and second node and retransmitting data packet if the packet is not received at the receiving node (see abstract; col. 5, line 65-col. 6, line 6). Keen does not specifically disclose STOMP symbol. However, the STOMP symbol is well known in the art. Arimilli discloses use the STOMP symbol to cancel an interrupted packet (see col. 3, line 39). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the STOMP symbol to cancel the interrupted packet as taught by Yeung in the system of Keen in order to eliminate unusable packet from the network.

Allowable Subject Matter

Art Unit: 2661

10. The indicated allowability of claims 1-8, 10-15, and 20 is withdrawn.

11. Claim 9 would be allowable if rewritten to overcome the rejection(s) under 35

U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

12. Applicant's arguments with respect to claims 16-19 have been considered but are moot in view of the new ground(s) of rejection.

13. Applicant's arguments filed 9/7/04 with respect to claims 21-23 have been fully considered but they are not persuasive. The applicant argued that Keen does not teach a system where either one of the nodes can send a control symbol to indicate a faulty message. The examiner disagrees because claim 21 claims "**at least one**". In addition, both nodes can perform transmitting and receiving functions; therefore, either one of the nodes can send a control symbol to indicate a faulty message. Note that the request for retransmission indicate a faulty message.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian D Nguyen whose telephone number is (703) 305-5133. The examiner can normally be reached on 7:30-6:00 Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Olms can be reached on (703) 305-4703. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2661

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

12/09/04



BRIAN NGUYEN
PRIMARY EXAMINER